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09/868,244	07/10/2001	Mikko Sievanen	19380.0006	7004

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EXAMINER	
PIERCE, WILLIAM M	
ART UNIT	PAPER NUMBER

3711

25

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,244

Applicant(s)

SIEVANEN ET AL.

Examiner

William M Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM M. PIERCE
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION***Claim Rejections - 35 USC § 112***

Claims 12-22 and 24-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims call for an "impact-resistant board layer" which is not disclosed. This is a new matter rejection. At best on pg. 4, ln. 23, it is disclosed that, the board is "high-density chipboard, constitutes a layer which endures impact stress". However, this is not a specific disclosure adequate enough to support that the board must be "impact resistant". Most anything "endures impact stress" in the broadest sense. How it endures is a question of the conditions and the variables it encounters when that impact stress is applied. Impact resistant is not the same as "endures impact stress" as disclosed.

Claim Rejections - 35 USC § 103

Claims 12-22 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunst in view of Beamish and further in view of Honeycomb Product and Paneltec as set forth in the previous office action and further in view of Dunn and Turner.

New limitations to claim 26 and new claim 28 now call for impact resistant board. However, honeycomb panels are design by selecting materials to suit their intended purpose. Where the conditions of use of a honeycomb panel require more durability, the thickness and material of the outer layer toughens. This is well known to the designers of honeycomb panels. One skill in the art of making such panels would select a combination of materials for the core and outer layers to suit the application and use of the panel. This position is supported by the courts that recognize that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.). Further note the reference to Bellcomb Honeycomb Panels were on <http://www.bellcomb.com/compon.htm> "Panel components page", it is taught that the skins can be, aluminum, "hardboard" and even plywood depending upon one wishes to design the panel for "applications designed". While

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the examiner does not have time to make of record all that is known to the art of Honeycomb panels, Patent No. 5,106,668 and 5,349,893 have been applied show the construction of impact resistant honeycomb panels. Stated therein is that, "it has been found that the weight increases attendant to measures used in past structures to provide bending and impact-resistant structures are not necessary to achieve those goals." In short, using stronger and thicker materials, that increases the weight of the panel, also increases its resistance to impact. To have used honeycomb panels designed in accordance with the teachings of Beamish, Honeycomb Product, Paneltec, Turner and Dunn in place of the panels of Brunst would have been obvious in order to provide a lighter, more durable and stable bowling lane sections..

Response to Arguments

Examiners position with respect to the limitation "impact resistant" is set forth above in the new matter and art rejections.

Examiner has further considered appellant's subsequent remarks that his invention has the advantage of "greatly reduced weight". However, such an advantage is the known applications of honeycomb panels, i.e. where a high strength to weight ratio would be advantageous.

With respect to Brunst, the grounds for rejection was based on a combination with Beamish and Honeycomb Product and Paneltec. It is noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the grounds of rejection it is stated that Brunst is relied on for showing that it is known in bowling lane construction to use composite panels in their making. However, it is acknowledged that it is not known to use honeycomb type panels (as opposed to the wood core comprising a plurality of wood strips).

The extent (or lack of) commercial success of Brunst has no bearing on the determination of obviousness. Many factors such as money, death of inventors, new innovations and etc. are variables which affect the to the degree of success an invention will achieve. Most analogous to the examiner position is the one taken by the courts the "even if a reference discloses an inoperative device, it is prior art for all that it teaches." *Beckman Instruments v. LKB Produkter AB*, 892 F.2d 1547, 1551, 13 USPQ2d 1301, 1304 (Fed. Cir. 1989). In the instant case, Brunst is prior art for all that he teaches in the art to that of bowling lanes being known to be constructed of composite panels.

Appellant goes on to make the statement that in honeycomb panels, "their vulnerability to impact is also known" and cites selected "Studies". However, these studies are not complete to what is known of Honeycomb products. True some may be prone to impact due to "foil" thin outer layers. Such types of honeycomb are well

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known in the aerospace industry. However, where the conditions of use of a honeycomb panel require more durability, the thickness and material of the outer layer toughens. This is well known to the designers of honeycomb panels. One skill in the art of making such panels would select a combination of materials for the core and outer layers to suit the application and use of the panel. This position is supported by the courts that recognize that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.). Further note the reference to Bellcomb Honeycomb Panels were on <http://www.bellcomb.com/compon.htm> "Panel components page", it is taught that the skins can be, aluminum, "hardboard" and even plywood depending upon one wishes to design the panel for "applications designed".

While the examiner does not have time to make of record all that is known to the art of Honeycomb panels, Patent No. 5,106,668 has been applied to the rejection above to show the limitation of impact resistant. Stated therein is that, "it has been found that the weight increases attendant to measures used in past structures to provide bending and impact-resistant structures are not necessary to achieve those goals." In short, using stronger and thicker materials, that increases the weight of the panel, also increases its resistance to impact.

While it is true that low impact resistant honeycomb panels were known at the time of the present invention" as stated at the top of pg. 8 of his remarks. This ignores most of what is known in the art of making and using honeycomb panels. Also known are panels with "plywood" skins that are more impact resistant than thin skinned panels. Even more broadly, panels are designed to suit their intended application to consider weight, strength and durability. To infer that only "low impact resistant honeycomb panels" existed is wholly misleading and false.

Also false is the subsequent statement that "simple face plates applied on honeycomb panels are not sufficient to prevent damage". Panels have been and are designed to suit their intended purpose. A designer must consider the environment in which a panel is intended to be used and then select the appropriate combination of materials to suit this purpose. Known is to have panels resistant to impact (see newly applied references), chemicals, abrasion, fire, moisture and etc.

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One skilled in the art would be well aware that honeycomb panels are "once for once, the strongest structural product known to man" (see middle pg. 2 of Honeycomb Product Corporation) and that "your product or process can benefit from the high strength and low weight, flatness, stability, radiopacity, resistance to torquing and bending, etc" using honeycomb panels (see bottom pg. 1 of Paneltec Corporation). In view of the above and the references showing the ordinary level of skill, it follows that the application of honeycomb panels to replace the panels shown by Brunst would have been obvious in order to give a lighter stronger lane panel.

Appellant's subsequent remarks on pg. 9 are founded upon the erroneous conclusion that all honeycomb panels cannot withstand impact. This is clearly not true when one considered the art of honeycomb panels as a whole and no further comment is deemed necessary since it would only serve to cloud the issue.

Appellant argues the date of the Honeycomb Products web site admitting that it appeared in 1997 and noting that the website was modified on December 24, 1998. However, he never reaches a conclusion or directly states that the reference is not prior art. Instead he argues the content of the page. As such, it is assumed that appellant has acquiesced that Honeycomb Products is in fact prior art even though he notes the dates appearing in the website. With respect to the "kraft paper", it is well known that this is only one of the possible numerous materials used for the facing in honeycomb products. The use of wood, aluminum and plastic laminate facings are also well known.

Paneltec shows a fraction of the ordinary level of skill in the art of honeycomb. Clearly it is no complete with respect to all the combination of materials that can be used in a honeycomb panel or their applications.

The lack of existence of honeycomb panels in the construction of bowling lanes does not show a "new way of thinking" (pg. 10, ln. 14, remarks). Appellant has applied a known construction element for its intended purpose to take advantage of its known properties of strength to weight, flatness, durability and stability.

Appellant's invention provides a lightweight element, which is not new or considered non-obvious. As stated above, honeycomb panels are notorious for these properties.

Perplexing is that the Appellant found it "unexpected" that his invention "maintained its straightness" in view of the fact that it is also notorious of honeycomb panels to have great dimensional stability. There exists nothing surprising in the design of a honeycomb panel designed to withstand the environment and conditions of subjected on a bowling lane and as such the instant invention is considered fairly taught by the applied art as set forth above.

Conclusion

Any inquiry concerning this communication and its merits should be directed to William Pierce at E-mail address bill.pierce@USPTO.gov or at telephone number (703) 308-3551.

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Any inquiry not concerning the merits of the case such as **missing papers, copies, status or information** should be directed to Tech Center 3700 Customer Service Center at (703) 306-5648 where the fax number is (703) 308-7957 and the email is Customerservice3700@uspto.gov.

For **official fax** communications to be officially entered in the application the fax number is (703) 872-9306.

For **informal fax** communications the fax number is (703) 308-7769.

Any inquiry of a general nature or relating to the **status** of this application or proceeding can also be directed to the receptionist whose telephone number is (703) 308-1148.

Any inquiry concerning the **drawings** should be directed to the Drafting Division whose telephone number is (703) 305-8335.



WILLIAM M. PIERCE
PRIMARY EXAMINER